

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: KELLY A. GARDNER  
SCIENTIFIC-ATLANTA, INC.  
INTELLECTUAL PROPERTY DEPARTMENT  
ONE TECHNOLOGY PARKWAY SOUTH  
NORCROSS, GA 30092

**PCT**

WRITTEN OPINION

(PCT Rule 66)

Date of Mailing  
(day/month/year)

**25 AUG 1999**

Applicant's or agent's file reference  
F-3472-PC

REPLY DUE

within TWO months  
from the above date of mailing

International application No.  
PCT/US98/15985

International filing date (day/month/year)  
31 JULY 1998

Priority date (day/month/year)  
01 AUGUST 1997

International Patent Classification (IPC) or both national classification and IPC  
IPC(6): H04N 7/167; H04L 9/32 and US Cl.: 380/20, 21, 30

Applicant  
SCIENTIFIC-ATLANTA, INC.

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I  Basis of the opinion
- II  Priority
- III  Non-establishment of opinion with regard to novelty, inventive step or industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

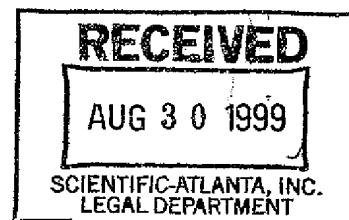
When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).~~

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4. For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 *bit.* For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 01 DECEMBER 1999.



Name and mailing address of the IPEA/US  
Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

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Authorized officer

GILBERTO BARRÓN JR.

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# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: KELLY A. GARDNER SCIENTIFIC-ATLANTA, INC. INTELLECTUAL PROPERTY DEPARTMENT ONE TECHNOLOGY PARKWAY SOUTH NORCROSS, GA 30092	<b>RECEIVED</b> <b>AUG 30 1999</b> <b>SCIENTIFIC-ATLANTA, INC.</b> <b>LEGAL DEPARTMENT</b>
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**PCT**

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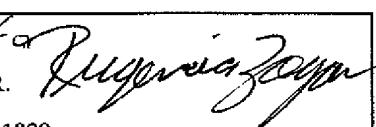
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Name and mailing address of the IPEA/US  Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231  Facsimile No. (703) 305-3230	Authorized officer  GILBERTO BARRÓN JR.   Telephone No. (703) 305-1830
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**I. Basis of the opinion**

1. This opinion has been drawn on the basis of (*Substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

the international application as originally filed.

the description, pages 1-78, as originally filed.  
pages NONE, filed with the demand.  
pages NONE, filed with the letter of \_\_\_\_\_.

the claims, Nos. 1-18, as originally filed.  
Nos. NONE, as amended under Article 19.  
Nos. NONE, filed with the demand.  
Nos. NONE, filed with the letter of \_\_\_\_\_.

the drawings, sheets/fig 1-21, as originally filed.  
sheets/fig NONE, filed with the demand.  
sheets/fig NONE, filed with the letter of \_\_\_\_\_.

2. The amendments have resulted in the cancellation of:

the description, pages NONE

the claims, Nos. NONE

the drawings, sheets/fig NONE

3.  This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the **Supplemental Box** Additional observations below (Rule 70.2(c)).

4. Additional observations, if necessary:

NONE

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. STATEMENT**

Novelty (N)	Claims <u>3, 8, 9, 12, 13, 14, 17 and 18</u>	YES
	Claims <u>1, 2, 4-7, 10, 11, 15 and 16</u>	NO
Inventive Step (IS)	Claims <u>8, 13 and 17</u>	YES
	Claims <u>1, 2, 4-7, 9-12, 14-16 and 18</u>	NO
Industrial Applicability (IA)	Claims <u>1-18</u>	YES
	Claims <u>NONE</u>	NO

**2. CITATIONS AND EXPLANATIONS**

Claims 1, 2, 4-7, 10, 11, 15 and 16 lack novelty under PCT Article 33(2) as being anticipated by Bestler et al.

The Bestler patent discloses a conditional access system having a subscriber authorization bit map and an authorization list that meets the elements of claims 1 and 10, see column 4, lines 24-26. Column 5, lines 50-60 describe an operation uses the representation of entitlements described above for determining whether a subscriber has the entitlement value for the given instance to met dependent claims 2, 4-7, 11, 15 and 16. See column 4, lines 59-67 for the operation of setting the entitlement value and the map.

Claims 3 and 12 lack an inventive step under PCT Article 33(3) as being obvious over Bestler et al in view of Jeffers et al. Jeffers discloses a bit map having single bit elements representing the state of an entitlement value, see column 4, lines 10-11. To provide for representing entitlement state values by single-bit elements would not involve an inventive step as Jeffers teaches such memory maps are known to represent entitlement values in conditional access systems.

Claims 9 and 14 an inventive step under PCT Article 33(3) as being obvious over Bestler et al in view of Bennett et al. Bennett teaches a conditional access system having entitlement values and operation limited by time values, see column 17, lines 43-45. To provide for entitlement values having time values would not involve an inventive step as Bennett teaches that time limiting values are used in conditional access systems.

Claim 18 lacks an inventive step under PCT Article 33(3) as being obvious over Bestler et al in view of Coutrot et al. Coutrot teaches a conditional access system wherein entitlement values are authenticated by digital signature, see column 5, lines 39-52. To use digital signatures for authenticating the entitlement values would not involve an inventive step as Coutrot teaches it is known to limit entitlements by time values in conditional access systems.

(Continued on Supplemental Sheet.)

## WRITTEN OPINION

International application No.

PCT/US98/15985

**VI. Certain documents cited**

## 1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication Date (day/month/year)	Filing Date (day/month/year)	Priority date (valid claim) (day/month/year)
US, A, 5,742,677	21 APR 1998	03 APR 1995	NONE

## 2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 3 is objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because the claim is indefinite for the following reason(s): There is no antecedent basis for "the array".

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

**TIME LIMIT:**

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

**V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):**

Claims 8, 13 and 17 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest the operations of an entitlements agent as recited in the instant claims.

**----- NEW CITATIONS -----**

US 5,036,537 A (Jeffers et al) 30 JUL 1991, see column 4, lines 10-11.

US 4,864,615 A (Bennett et al) 05 SEP 1898, see column 17, lines 43-45.

US 5,301,233 A (Coutrot et al) 05 APR 1994 see column 5, lines 39-52.